

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A honeycomb structural body comprising:

at least one pillar-shaped porous ceramic member comprising a silicon-ceramic composite material, the silicon-ceramic composite material comprising a silicon constituent and a ceramic constituent, the at least one pillar-shaped porous ceramic member having a plurality of through-holes extending in a longitudinal direction of the at least one pillar-shaped porous ceramic member and a plurality of partitions separating the through-holes,

wherein

the through-holes are plugged such that an opening area at one end face of the at least one pillar-shaped porous ceramic member is different from an opening area at the other end face of the at least one pillar-shaped porous ceramic member, and

a surface roughness of the partition in the porous ceramic member is 1.0-30.0 μm .

Claim 2 (Previously Presented): A honeycomb structural body according to claim 1, wherein the plurality of through-holes include a group of large volume through-holes plugged so as to make relatively large a sum of opening areas at the one end face perpendicular to the longitudinal direction, and a group of small volume through-holes plugged so as to make relatively small a sum of opening areas at the other end face.

Claim 3 (Currently Amended): A honeycomb structural body comprising:

at least one pillar-shaped porous ceramic member comprising a silicon-ceramic composite material, the silicon-ceramic composite material comprising a silicon constituent and a ceramic constituent, the at least one pillar-shaped porous ceramic member having a

plurality of through-holes extending in a longitudinal direction of the at least one pillar-shaped porous ceramic member and a plurality of partitions separating the through-holes,

wherein the plurality of through-holes includes a group of large volume through-holes plugged so as to make relatively large a sum of opening areas at one end perpendicular to the longitudinal direction, and a group of small volume through-holes plugged so as to make relatively small a sum of opening areas at the other end face, and

a surface roughness of the partition in the porous ceramic member is 1.0-30.0 μm .

Claim 4 (Previously Presented): A honeycomb structural body according to claim 3, wherein the plurality of through-holes has a relation that a distance between gravity centers of the large volume through-holes perpendicular to the longitudinal direction is equal to a distance between gravity centers of the small volume through-holes perpendicular to the longitudinal direction.

Claim 5 (Currently Amended): A honeycomb structural body according to claim 3, wherein each of the large volume through-holes is made of ~~[[s]]~~ a through-hole having a hole size larger than a hole size of each of the small volume through-holes.

Claim 6 (Previously Presented): A honeycomb structural body according to claim 3, wherein the large volume through-holes comprise a gas inflow side cells opened at an inlet side, and the small volume through-holes comprise a gas outflow side cells opened at an outlet side.

Claim 7 (Previously Presented): A honeycomb structural body according to claim 3, wherein the pillar-shaped porous ceramic member has a porosity in a range of 30-80%.

Claim 8 (Canceled).

Claim 9 (Previously Presented): A honeycomb structural body according to claim 3, wherein the plurality of partitions has a thickness in a range of 0.15-0.45 mm.

Claim 10 (Previously Presented): A honeycomb structural body according to claim 3, wherein a half-width value of Si peak (2θ = about 28°) in an X-ray diffraction of the silicon-ceramic composite material is not more than 0.6° .

Claim 11 (Previously Presented): A honeycomb structural body according to claim 3, wherein the plurality of through-holes is plugged with a plugging material.

Claim 12 (Previously Presented): A honeycomb structural body according to claim 3, wherein each of the plurality of through-holes has a polygonal shape.

Claim 13 (Previously Presented): A honeycomb structural body according to claim 3, wherein through-holes have at least one of a square shape and an octagonal shape.

Claim 14 (Previously Presented): A honeycomb structural body according to claim 3, wherein each of the through-holes has at least one corner part which has a round or chamfered form.

Claim 15 (Previously Presented): A honeycomb structural body according to claim 3, wherein an area ratio of each of the large volume through-holes perpendicular to the longitudinal direction to each of the small volume through-holes perpendicular to the longitudinal direction (large volume through-hole sectional area/small volume through-hole sectional area) is 1.01–9.00.

Claim 16 (Previously Presented): A honeycomb structural body according to claim 3, wherein an area ratio of each of the large volume through-holes perpendicular to the longitudinal direction to each of the small volume through-holes perpendicular to the longitudinal direction (large volume through-hole sectional area/small volume through-hole sectional area) is 1.01–6.00.

Claim 17 (Previously Presented): A honeycomb structural body according to claim 3, further comprising a catalyst coated over at least part of the partitions.

Claim 18 (Previously Presented): A honeycomb structural body according to claim 3, wherein the at least one pillar-shaped porous ceramic member comprises a plurality of pillar shaped porous ceramic members bundled through a sealing material layer.

Claim 19 (Previously Presented): A honeycomb structural body according to claim 3, wherein the ceramic constituent comprises silicon carbide.

Claim 20 (Previously Presented): A filter for purifying an exhaust gas, comprising the honeycomb structural body according to claim 3.

Claim 21 (Previously Presented): A honeycomb structural body according to claim 1, wherein the silicon constituent is interposed among the ceramic constituent.

Claim 22 (Previously Presented): A honeycomb structural body according to claim 3, wherein the silicon constituent is interposed among the ceramic constituent.